**In summary in the applicant points out the following differences over the prior art cited by the examiner.**

**1. Applicant's air pressure sensor employs strong magnet on an air piston, plus a fixed reference magnet, whereas Hattori employs bar magnet mounted on piston *extension*, between two oppositely aligned magnets.**

**2. For transducer detection the applicant relies on the intensity of the magnetic field of the sensor and the fixed magnet whereas Hattori utilizes intensity *and phase* of the *sensor* magnet.**

**3. The applicant's embodiment provides high continuous resolution in real time, dependent on the sampling rate. Hattori is limited to low resolution which quantized to 8 levels, dependent on the thread pitch for which 1 rotation of the bar magnet travels.**

**4. Applicant's embodiment also provides much broader range continuous over the piston travel, dependent on the sampling period, where as in Hattori's embodiment the range is limited to 1 rotation of the bar magnet.**

**5. The applicant achieves high resolution by calibrating the distance between the sensor and center of the tire. To achieve high resolution Hattori must calibrate and compensate for distance between the sensor and transducer.**

**6. Noise sensitivity in applicant's embodiment is parallel to the direction of travel. In Hattori's embodiment noise sensitivity is perpendicular to the direction of travel which is significantly higher and adverse.**

**7. In applicant's embodiment sensor pick up is discrete analog level detector independent of phase. Hattori sensor pick up depends upon phase.**

**8. The applicant employs centralized processing. When the magnetic field from the fixed and transducer exceeds a threshold level, a continuous digital stream of pulses is generated, which is continuously connected to a centralized electronics module for processing, display and alarm via a wire.**